



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bjorn JOHANSSON et al. Conf.: 5909

Appl. No.: 10/542,294 Art Unit: 3644

Filed: July 15, 2005 Examiner: Monica Williams

Title: ARRANGEMENT FOR HOUSING MILKING ANIMALS

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APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

Madam:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellants submit the following:

I. REAL PARTY IN INTEREST:

The real party in interest in this appeal is DeLaval Holding AB. Assignment of the application was submitted to the U.S. Patent and Trademark Office on June 22, 2006, and recorded on April 24, 2006 at Reel 017829, Frame 0525.

II. RELATED APPEALS AND INTERFERENCES

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No related appeals or interferences are known.

III. STATUS OF CLAIMS:

Claims 1-29 are pending. Claims 1-29 currently stand rejected and are the subject of this appeal. Claims 1, 21, 28, and 29 are independent claims. The claims are rejected as follows:

1. Claims 1-7 and 9-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EP Patent 0608941 to Maasland et al. ("Maasland") in view of EP Patent 1213676 to Harmsen et al. ("Harmsen").
2. Claims 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Harmsen in view of Maasland.
3. Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Maasland in view of Harmsen and US Pat 3,261,324 to Conover ("Conover").

Claims 1-29 are being appealed.

IV. STATUS OF AMENDMENTS:

Amendments after the Final Office Action of May 1, 2009 ("Final Office Action") were submitted on August 3, 2009 and refused entry. The claims presented and argued below are in their form at the closing of prosecution as entered from Applicants' response of January 30, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER:

The following explains the subject matter set forth in each claim argued on appeal and each independent claim by way of example embodiments in the specification by page and line number, and in the drawings, if any, by reference characters only to satisfy 37 C.F.R. § 41.37(c)(1)(v). This concise explanation relies on example embodiments from the specification to describe the claims; however, the claims recite subject matter not limited to these example embodiments. Independent claims 1, 21, 28, and 29 are the independent claims on appeal, and claim 9 is the only dependent claim argued separately on appeal.

Claim 1

Example systems include facilities and operations for automatically arranging and sheltering milking animals, such as cows. The automated arrangement includes the use of computers that identify, track, and/or control the movement of distinct groups of milking animals. Example facilities may be implemented in automated milking, feeding, and resting areas such as in the milking facilities illustrated in FIGS. 1-3. The preamble of claim 1, "a computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups" describes this example setting and may be found in the specification¹ at Page 6, lines 11-17; Page 11, lines 5-15; and Page 12, lines 10-15.

¹ Note that the page and line numbering of the specification as filed on July 15, 2005 is cited herein and does not necessarily correspond to other documents submitted with the 371 application, certified priority application, or specification as published.

Example arrangements include resting areas where milking animals may be sheltered, sleep, and/or socialize. As shown in FIG. 1, resting area 1 may include several partitions that provide animals individual resting stalls. The limitation of claim 1 "a resting area wherein the milking animals are allowed to rest" reads on these examples facilities and may be found in the specification at Page 6, lines 11-23.

Example arrangements further include feeding areas where milking animals may be fed a desired feed type by a variety of known automatic feeding machines. As shown in FIG. 1, feeding area 3 may include a large space with a feeding table 17 where animals are free to move about and feed at their leisure. The limitation of claim 1 "a feeding area wherein the milking animals are fed" reads on these examples facilities and may be found in the specification at Page 6, lines 23-26.

Example arrangements further include feeding areas where milking animals may be fed a desired feed type by a variety of known automatic feeding machines. As shown in FIG. 1, feeding area 3 may include a large space with a feeding table 17 where animals are free to move about and feed at their leisure. The limitation of claim 1 "a feeding area wherein the milking animals are fed" reads on these examples facilities and may be found in the specification at Page 6, lines 23-26.

Example arrangements lastly include a milking area where the milking animals may be milked by automatic milking robots. The robots may be provided in individual stalls and may identify and milk individual animals.

FIG. 1 shows an example milking area 5 in the example facility. The limitation of claim 1 "a milking area housing at least one milking robot for milking the milking animals" reads on these example facilities and may be found in the specification at Page 6, line 26 through Page 7, line 8.

The resting and/or feeding areas described above in example arrangements are divided into distinct sections, such that each group of milking animals has its own sections. The sections may be exclusive so as to prevent intermixing of animals and preserve the animal groupings. FIG. 1 shows an example of such divisions 7, 9, 11, and 13 for four different animal groups in a resting area, and FIG. 2 shows divisions 41, 43, 45, and 47 in a feeding area. The limitation of claim 1, "wherein at least one of said resting area and said feeding area is partitioned in sections which corresponds to the number of said groups, to which said milking animals belong" read on these example arrangements and may be found in the specification at Page 8, lines 3-14 and Page 11, lines 5-9.

Milking animals are maintained in their groups by gates between each area that identify and selectively permit passage to animals within appropriate groups. For example, gates between an aggregate milking area and partitioned feeding area may identify an approaching animal with known tagging technology and, open if the animal is a member of the group that belongs to the partition to which the gate leads, and not open if the animal is not a member of the relevant group. In this way, animals may be automatically directed into their partitioned group areas, even when initially intermixed among groups.

FIG. 1 illustrates example gates 21 with animal identification device 23 having doors to direct animals into one of four partitioned resting areas based on the animals' group membership. The limitation of claim 1, "a device including a plurality of selection gates and a plurality of animal identification members, the device provided for automatically directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups" read on these example devices and may be found in the specification at Page 8, line 30 through Page 9, line 20.

As discussed above, example area arrangements and gates therebetween permit the distinct groups to mix at desired areas. For example, it may be desirable for social reasons to permit a group of animals that are gestating to mix with all animal groups during feeding, for social purposes, so as to maximize their milk production. However, the gestating group may be desirably segregated from non-gestating groups during resting, so as to prevent pregnancy and rearing activities common to resting areas from disturbing non-gestating groups and their milk production. Example area arrangements and gates may thus be non-partitioned or absent at the desired mixed areas, such as feeding area 3 in FIG. 1. The limitation of claim 1, "wherein said device and said arrangement are configured to mix the plurality of groups including the large number of milking animals in at least one of said resting, feeding and

milking areas" read on these example arrangements and may be found in the specification at Page 7, line 24 through Page 8, line 29.

Claim 9

The milking area, in particular, of example arrangements may be attached to other areas such that animal groups from the other areas cannot access all the milking machines in the area. This may be important for ill groups that should be prevented from using milking machines accessible to healthy groups, for purposes of quarantine. FIG. 3 shows an example arrangement whereby only a portion of milking area 5 is strictly linked to only one partition of the resting area 1. The limitation of claim 9 "each of said sections, in which said resting area is partitioned, is linked to said milking area so that the milking animals housed in the respective section have access to a subset only of said at least one milking robot" read on these example arrangements and may be found in the specification at Page 13, lines 23-26.

In order to divide the milking area into such subsets linked to only by specific partitions from other areas, movable walls may provide for dividing up the milking area. The movable walls may also serve to increase or decrease the size of the milking area divisions, depending on the size of the animal groups to be milked in the milking area. FIG. 3 shows an example of partitioning devices 55 dividing the milking area 5 into various subsets linked to only by certain partitions of the feeding and resting areas. The limitation of claim 9 "a device provided for automatically enlarging or reducing each of the respective subsets of the at least one milking robot, to which milking animals housed in the

respective section have access, depending on the number of milking animals housed in the respective section, or on the milking capacity required by the milking animals housed in the respective section" read on these example devices and may be found in the specification at Page 13, lines 4-17.

Claim 21

Example systems include facilities and operations for automatically arranging and sheltering milking animals, such as cows. The automated arrangement includes the use of computers that identify, track, and/or control the movement of distinct groups of milking animals. Example facilities may be implemented in automated milking, feeding, and resting areas such as in the milking facilities illustrated in FIGS. 1-3. The preamble of claim 21, "a computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups" describes this example setting and may be found in the specification at Page 6, lines 11-17; Page 11, lines 5-15; and Page 12, lines 10-15.

Example arrangements include resting areas where milking animals may be sheltered, sleep, and/or socialize. As shown in FIG. 1, resting area 1 may include several partitions that provide animals individual resting stalls. The limitation of claim 21 "a resting area wherein the milking animals are allowed to rest" reads on these examples facilities and may be found in the specification at Page 6, lines 11-23.

Example arrangements further include feeding areas where milking animals may be fed a desired feed type by a variety of known automatic feeding

machines. As shown in FIG. 1, feeding area 3 may include a large space with a feeding table 17 where animals are free to move about and feed at their leisure. The limitation of claim 21 "a feeding area wherein the milking animals are fed" reads on these examples facilities and may be found in the specification at Page 6, lines 23-26.

Example arrangements further include feeding areas where milking animals may be fed a desired feed type by a variety of known automatic feeding machines. As shown in FIG. 1, feeding area 3 may include a large space with a feeding table 17 where animals are free to move about and feed at their leisure. The limitation of claim 21 "a feeding area wherein the milking animals are fed" reads on these examples facilities and may be found in the specification at Page 6, lines 23-26.

Example arrangements lastly include a milking area where the milking animals may be milked by automatic milking robots. The robots may be provided in individual stalls and may identify and milk individual animals. FIG. 1 shows an example milking area 5 in the example facility. Alternatively, the animals of a particular group may be placed in individual milking boxes in the milking area and milked together by a single robot. For example, FIG. 3 illustrates a common milking area 5 having several stations 51 being served by a common milking robot. The limitation of claim 21 "a milking area housing at least one milking robot for milking the animals and a plurality of milking boxes, each of which being adapted to receive a respective milking animal, wherein said at least one milking robot is adapted to milk milking animals

present in said plurality of milking boxes concurrently" reads on these example facilities and may be found in the specification at Page 6, line 26 through Page 7, line 8 and Page 12, lines 16-20.

The resting area described above in example arrangements are divided into distinct sections, such that each group of milking animals has its own section. The sections may be exclusive so as to prevent intermixing of animals and preserve the animal groupings. FIG. 1 shows an example of such divisions 7, 9, 11, and 13 for four different animal groups in a resting area, and FIG. 2 shows divisions 41, 43, 45, and 47 in a feeding area. The milking area, in particular, of example arrangements may be attached to other areas such that animal groups from the other areas cannot access all the milking machines in the area. This may be important for ill groups that should be prevented from using milking machines accessible to healthy groups, for purposes of quarantine. FIG. 3 shows an example arrangement whereby only a portion of milking area 5, and milking stations 51 therein, are strictly linked to only one partition of the resting area 1. The limitation of claim 21, "said resting area is partitioned in sections, each of which being adapted to house milking animals belonging to one of said plurality of groups, and each of which being linked to said milking area so that milking animals housed in the respective section have access to a subset only of said plurality of milking boxes" read on these example arrangements and may be found in the specification at Page 8, lines 3-14 and Page 11, lines 5-9.

In order to divide the milking area into such subsets linked to only by specific partitions from other areas, movable walls may provide for dividing up the milking area. The movable walls may also serve to increase or decrease the size of the milking area divisions, depending on the size of the animal groups to be milked in the milking area. FIG. 3 shows an example of partitioning devices 55 dividing the milking area 5 into various subsets linked to only by certain partitions of the feeding and resting areas. The limitation of claim 9 "a device provided for automatically enlarging or reducing each of the respective subsets of the plurality of milking boxes, to which milking animals housed in a section have access, depending on the number of milking animals housed in the respective section or on the milking capacity required by the milking animals housed in the respective section" read on these example devices and may be found in the specification at Page 13, lines 4-17.

Claim 28

Example systems include facilities and operations for automatically arranging and sheltering milking animals, such as cows. The automated arrangement includes the use of computers that identify, track, and/or control the movement of distinct groups of milking animals. Example facilities may be implemented in automated milking, feeding, and resting areas such as in the milking facilities illustrated in FIGS. 1-3. The preamble of claim 28, "a computer-controlled arrangement for voluntary milking of a large number of milking animals, each of which belongs to one of a plurality of groups"

describes this example setting and may be found in the specification at Page 6, lines 11-17; Page 11, lines 5-15; and Page 12, lines 10-15.

Example arrangements include resting areas where milking animals may be sheltered, sleep, and/or socialize. As shown in FIG. 1, resting area 1 may include several partitions that provide animals individual resting stalls. The limitation of claim 28 "a resting area wherein the milking animals are allowed to rest" reads on these examples facilities and may be found in the specification at Page 6, lines 11-23.

Example arrangements further include feeding areas where milking animals may be fed a desired feed type by a variety of known automatic feeding machines. As shown in FIG. 1, feeding area 3 may include a large space with a feeding table 17 where animals are free to move about and feed at their leisure. The limitation of claim 28 "a feeding area wherein the milking animals are fed" reads on these examples facilities and may be found in the specification at Page 6, lines 23-26.

Example arrangements lastly include a milking area where the milking animals may be milked by automatic milking robots. The robots may be provided in individual stalls and may identify and milk individual animals based on the identification. FIG. 1 shows an example milking area 5 in the example facility. The limitation of claim 28 "a milking area housing at least one milking robot for milking the milking animals presenting themselves in the milking area if the presented milking animals satisfy a milking decision

“criteria” reads on these example facilities and may be found in the specification at Page 6, line 26 through Page 7, line 8 and Page 12, lines 16-20.

The resting and/or feeding areas described above in example arrangements are divided into distinct sections, such that each group of milking animals has its own sections. The sections may be exclusive so as to prevent intermixing of animals and preserve the animal groupings. FIG. 1 shows an example of such divisions 7, 9, 11, and 13 for four different animal groups in a resting area, and FIG. 2 shows divisions 41, 43, 45, and 47 in a feeding area. The limitation of claim 28, “wherein at least one of said resting area and said feeding area is partitioned in sections which corresponds to the number of said groups, to which said milking animals belong” read on these example arrangements and may be found in the specification at Page 8, lines 3-14 and Page 11, lines 5-9.

Milking animals are maintained in their groups by gates between each area that identify and selectively permit passage to animals within appropriate groups. For example, gates between an aggregate milking area and partitioned feeding area may identify an approaching animal with known tagging technology and, open if the animal is a member of the group that belongs to the partition to which the gate leads, and not open if the animal is not a member of the relevant group. In this way, animals may be automatically directed into their partitioned group areas, even when initially intermixed among groups. FIG. 1 illustrates example gates 21 with animal identification device 23 having doors to direct animals into one of four partitioned resting areas based on the

animals' group membership. The limitation of claim 28, "a device provided for automatically directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups" read on these example devices and may be found in the specification at Page 8, line 30 through Page 9, line 20.

Claim 29

Example systems include facilities and operations for automatically arranging and sheltering milking animals, such as cows. The automated arrangement includes the use of computers that identify, track, and/or control the movement of distinct groups of milking animals. Example facilities may be implemented in automated milking, feeding, and resting areas such as in the milking facilities illustrated in FIGS. 1-3. The preamble of claim 29, "a computer-controlled arrangement for voluntary milking of a large number of milking animals, each of which belongs to one of a plurality of groups" describes this example setting and may be found in the specification at Page 6, lines 11-17; Page 11, lines 5-15; and Page 12, lines 10-15.

Example arrangements include resting areas where milking animals may be sheltered, sleep, and/or socialize. As shown in FIG. 9, resting area 1 may include several partitions that provide animals individual resting stalls. The limitation of claim 29 "a resting area wherein the milking animals are allowed

to rest" reads on these examples facilities and may be found in the specification at Page 6, lines 11-23.

Example arrangements further include feeding areas where milking animals may be fed a desired feed type by a variety of known automatic feeding machines. As shown in FIG. 1, feeding area 3 may include a large space with a feeding table 17 where animals are free to move about and feed at their leisure. The limitation of claim 29 "a feeding area wherein the milking animals are fed" reads on these examples facilities and may be found in the specification at Page 6, lines 23-26.

Example arrangements lastly include a milking area where the milking animals may be milked by automatic milking robots. The robots may be provided in individual stalls and may identify and milk individual animals. FIG. 1 shows an example milking area 5 in the example facility. Alternatively, the animals of a particular group may be placed in individual milking boxes in the milking area and milked together by a single robot. For example, FIG. 3 illustrates a common milking area 5 having several stations 51 being served by a common milking robot. The limitation of claim 28 "a milking area housing at least one milking robot for milking the milking animals, animals of each of the said plurality of groups having simultaneous access to the milking area" reads on these example facilities and may be found in the specification at Page 6, line 26 through Page 7, line 8 and Page 12, lines 16-20.

The resting and/or feeding areas described above in example arrangements are divided into distinct sections, such that each group of

milking animals has its own sections. The sections may be exclusive so as to prevent intermixing of animals and preserve the animal groupings. FIG. 1 shows an example of such divisions 7, 9, 11, and 13 for four different animal groups in a resting area, and FIG. 2 shows divisions 41, 43, 45, and 47 in a feeding area. The limitation of claim 29, "wherein at least one of said resting area and said feeding area is partitioned in sections which corresponds to the number of said groups, to which said milking animals belong" read on these example arrangements and may be found in the specification at Page 8, lines 3-14 and Page 11, lines 5-9.

Milking animals are maintained in their groups by gates between each area that identify and selectively permit passage to animals within appropriate groups. For example, gates between an aggregate milking area and partitioned feeding area may identify an approaching animal with known tagging technology and, open if the animal is a member of the group that belongs to the partition to which the gate leads, and not open if the animal is not a member of the relevant group. In this way, animals may be automatically directed into their partitioned group areas, even when initially intermixed among groups. FIG. 1 illustrates example gates 21 with animal identification device 23 having doors to direct animals into one of four partitioned resting areas based on the animals' group membership. The limitation of claim 29, "a device provided for automatically directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the

respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups" read on these example devices and may be found in the specification at Page 8, line 30 through Page 9, line 20.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Appellant seeks the Board's review of the following rejections:

1. The rejection to claims 1-7 and 9-29 under 35 U.S.C. § 103(a) as being unpatentable over EP Patent Publication 0608941 to Maasland et al. ("Maasland") in view of EP Patent Publication 1213676 to Harmsen et al. ("Harmsen")² or vice versa.

Claims 1-20, 28, and 29 are argued as a group and claims 9, 11, and 21-27 are argued further as a group.

VII. ARGUMENTS:

A. MAASLAND AND HARMSEN MAY NOT BE OPERABLY COMBINED TO RENDER CLAIMS 1, 28, OR 29 OBVIOUS.

Claims 1-7 and 9-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maasland in view of Harmsen. Claims 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Harmsen in view

² Note that the EP Patent Publication 1213676 lists an Applicant of "N.V. Nederlandsche Apparatenfabriek NEDAP," not "Harmsen," who is an inventor. However, the "Harmsen" short form is maintained for this reference in order to be consistent with the Examiner's labeling of the reference throughout prosecution.

of Maasland. Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Maasland in view of Harmsen and Conover. The Examiner applies Maasland to teach each element of claims 1, 28, and 29, except for limitations requiring mixing of animal groups, for which the Examiner applies Harmsen. The Examiner alleges that the distinct animal groups of Maasland can be modified by mixing groups in Harmsen in order to concurrently feed or milk several groups for higher efficiency. Applicants respectfully submit and argue below that modifying the milking arrangement in Maasland to have mixed animal groups like in Harmsen will destroy the system of Maasland, which is impermissible under § 103.

1. Principles of Law

In order to set forth a prima facie case of obviousness under 35 U.S.C. § 103(a), the Examiner must make the factual determinations set forth in Graham v. John Deere Co., 282 U.S. 1, 17 (1966), including identifying differences between the claimed invention and the prior art. In combining references and accounting for differences between a claim and the applied art, the Examiner must provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741 (2007). However, no rational underpinning exists to combine two references such that “using it in that combination would produce an inoperative result.” In re ICON Health & Fitness, Inc., 496 F.3d 1374, 1382 (Fed. Cir. 2007). As such, where one reference’s stated advantage

is incompatible or unachievable when combined with another reference, the combination of the two is not obvious. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326-28 (Fed. Cir. 2009). This is particularly true where two references' "teachings undermine the very reason being proffered as to why a person of ordinary skill would have combined the known elements." *Id.* at 1328. Even if a modification does not result in inoperability of the prior art but merely "would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810 (C.C.P.A. 1959); *see also* MPEP § 2143.01(VI). The Board of Patent Appeals and Interferences has plenary review of issues of obviousness and the teachings of the applied references underlying the appealed rejections. 35 U.S.C. § 6(b).

2. Maasland requires a strict milking schedule for distinct animal groups that would be destroyed by the group mixing of Harmsen.

Maasland teaches an animal scheduling system that milks separate groups of animals at a particular time and guides the animal groups through any of the feeding, resting, or milking areas disclosed therein at times meeting this schedule. *See* Maasland, Col. 3, ll. 40-55. Each group of animals is given a unique schedule for every activity and area in Maasland; none of the automated devices in Maasland are configured to mix the groups. *See* Maasland, Col. 3, l. 56 – Col. 5, l. 52 (detailing each group's schedule for each

activity and area). Regarding this strict area and activity scheduling, Maasland teaches that it “is advantageous to provide a still further space for the animals before and/or after the feeding area. The latter space serves as a kind of buffer area . . . whilst the groups of animals are constantly kept separate.” Maasland, Col. 1, ll. 44-52. Maasland further discloses that it “is basically a disadvantage if an animal would be milked again at too short an interval.” Maasland, Col. 1, l. 58 – Col. 2, l. 2.

Harmsen teaches, and the Examiner applies Harmsen for teaching, common feeding areas in which all animal groups are mixed at the same time and from which individual animals may be separated. *See* Harmsen, ¶ [0022]; FIG. 3, element 10.3 (common feeding area from which animals may be selected). The Examiner alleges that common feeding areas for all animals, like in Harmsen, will permit more efficient feeding in the system of Maasland. Applicants agree that a common feeding area may permit faster feeding by allowing all animal groups to eat together; it will also destroy any groups’ eating schedule by allowing all animals groups to eat together. Further, a common feeding will destroy the groups’ milking schedule, as all animals are permitted into a common milking area to be milked, after feeding together for two hours. *See* Harmsen, ¶ [0050]; FIG. 3, element 10.2. All animal mixing and concurrent activity are expressly incompatible with the system and advantages Maasland, whose activity and area schedules would be inoperable if all animals are mixed. The destruction of Maasland alone makes the Examiner’s Maasland-Harmsen combination impermissible under § 103; worse,

the inoperability of the Maasland-Harmsen combination directly undermines the Examiner's "efficiency" reasoning, eliminating any rational underpinning required by § 103. *See, e.g., DePuy* at 1328.

Thus, Maasland and Harmsen may not be combined under § 103 to render any of claims 1, 28, and 29 obvious, as all of these claims fairly require animal groups to be mixed at some point and subsequently re-separated in the groups, by the language "wherein said device and said arrangement are configured to mix the plurality of groups including the large number of milking animals in at least one of said resting, feeding and milking areas" or the grouping action of "directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups." Claims 2-20 are allowable at least for depending from an allowable base claim 1. Reversal of the rejections to claims 1-20 under 35 U.S.C. § 103(a) is respectfully requested.

**B. THE EXAMINER HAS NOT ACCOUNTED FOR DIFFERENCES
BETWEEN THE PRIOR ART AND CLAIMS 9 AND 21.**

Claims 9, 10, 21-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maasland in view of Harmsen. The Examiner applies Maasland to teach elements of claims 9 and 21 directed to linking a milking area so that milking animals housed in the respective section have access to a

subset of milking boxes in the area. The Examiner alleges that, because only one animal can go in one box in Maasland, the claim limitation is met. Applicants respectfully submit and argue below that the Examiner has not accounted for this claim element, under the broadest reasonable interpretation of the claim, as required under § 103.

1. Principles of Law

In order to set forth a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the Examiner must make the factual determinations set forth in Graham v. John Deere Co., 282 U.S. 1, 17 (1966), including identifying differences between the claimed invention and the prior art. The terms of the claim may be interpreted in accordance with their broadest reasonable interpretation in light of the specification as understood in the art, and each limitation of a claim must be given weight in this determination in order to determine whether the “subject matter as a whole would have been obvious.” 35 U.S.C. § 103(a); *see Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). In combining references and accounting for differences between a claim and the applied art, the Examiner must provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741 (2007). The Board of Patent Appeals and Interferences has plenary review of issues of obviousness and the teachings of the applied references underlying the appealed rejections. 35 U.S.C. § 6(b).

2. Maasland does not teach or suggest sections linked a milking area so that milking animals in a section have access to a subset of milking boxes

Claims 9 and 21 both recite a “resting area is partitioned in sections, . . . each of which being linked to said milking area so that milking animals housed in the respective section have access to a subset only of said plurality of milking boxes.” The Examiner alleges that the resting areas (4-11) of Maasland are linked to milking boxes (31, 32) such that only one box is available to an animal, if an animal is in one stall or if door (20) is partially shut. Applicants respectfully submit that the plain language of claims 9 and 21 requires the *partitioned sections to limit animal access to a subset of the milking boxes*. In Maasland, resting areas 4-11 and walls therebetween, which the Examiner applies as a resting area partitioned in sections, do not limit access to only a subset of milking boxes. Rather, animals in the *resting areas 4-11 can access all milking boxes* due to the resting area arrangement itself connecting to all boxes. *See* Maasland, FIG. 1, elements 4-11, 31, 32. The Examiner’s assertion that access to a particular milking box may be cut off by other animals or doors would be apt only if the claim recited “milking animals” or “robotic doors” that “permit access to a subset only of said plurality of milking boxes.” Claims 21 and 9 do not recite this. Thus, Maasland lacks the linked sections as recited in claims 21 and 9.

Harmsen does not cure, and is not applied for curing, the differences between claims 21, 9, and Maasland. Because Maasland, alone or in combination with Harmsen, possesses unaccounted-for differences between

each and every feature of claims 9 and 21, these references cannot render obvious claims 9 or 21. Claims 11 and 22-27 are allowable at least for depending from an allowable base claim. Reversal of the rejections to claims 9, 10, and 21-27 under 35 U.S.C. § 103(a) is respectfully requested.

C. CONCLUSION

In light of the above arguments, the Board is respectfully requested to review and reverse the rejections to claims 1-29 in connection with this application.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 41.20(b), particularly, Appeal Brief fees.

Respectfully submitted,
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VIII. APPENDIX A - Listing of claims 1-29 on appeal:

1. A computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups, said arrangement comprising:

- a resting area wherein the milking animals are allowed to rest;
- a feeding area wherein the milking animals are fed;
- a milking area housing at least one milking robot for milking the milking animals,
- wherein at least one of said resting area and said feeding area is partitioned in sections which corresponds to the number of said groups, to which said milking animals belong; and
- a device including a plurality of selection gates and a plurality of animal identification members, the device provided for automatically directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups,
- wherein said device and said arrangement are configured to mix the plurality of groups including the large number of milking animals in at least one of said resting, feeding and milking areas.

2. The arrangement of claim 1 wherein said milking area houses a plurality of milking boxes, each of which being adapted to receive a respective milking animal, wherein said at least one milking robot is adapted to milk milking animals present in the milking boxes concurrently.
3. The arrangement of claim 1 wherein said milking area houses a plurality of milking robots for milking the milking animals.
4. The arrangement of claim 1 wherein the milking area is arranged so that said milking animals have to pass said milking area when moving from said resting area to said feeding area.
5. The arrangement of claim 1 wherein said at least one of said resting area and said feeding area, which is partitioned in sections, includes said resting area.
6. The arrangement of claim 5 wherein
 - said large number of milking animals are allowed to move about freely in said feeding area; and

- said device provided for directing includes a milking animal identification device provided for identifying each milking animal presenting itself in front of said device provided for directing, and a device provided for opening at least one gate depending on said milking animal identification.

7. The arrangement of claim 5 wherein said device provided for directing includes a plurality of passage ways from said feeding area to said resting area.

8. The arrangement of claim 7 wherein said plurality of passage ways from said feeding area to said resting area are arranged in at least two floors to effectively use available space and to provide for short passage ways.

9. The arrangement of claim 5 wherein

- each of said sections, in which said resting area is partitioned, is linked to said milking area so that the milking animals housed in the respective section have access to a subset only of said at least one milking robot; and

- a device provided for automatically enlarging or reducing each of the respective subsets of the at least one milking robot, to which milking animals housed in the respective section have access, depending on the number of milking animals housed in the respective section, or on the milking capacity required by the milking animals housed in the respective section.

10. The arrangement of claim 1 wherein said at least one of said resting area and said feeding area, which is partitioned in sections, includes said feeding area.

11. The arrangement of claim 9 wherein

- said large number of milking animals are allowed to move about freely in said resting area; and
- said device provided for directing includes a milking animal identification device provided for identifying each milking animal presenting itself for milking in said milking area, and a device provided for opening at least one gate, optionally after the milking animal has been milked, depending on said milking animal identification.

12. The arrangement of claim 1 wherein milking animals having similar milk production belong to one of said plurality of groups.

13. The arrangement of claim 1 wherein milking animals being in similar phases of the lactation cycle belong to one of said plurality of groups.

14. The arrangement of claim 1 wherein milking animals on heat belong to one of said plurality of groups.

15. The arrangement of claim 1 wherein gestation milking animals belong to one of said plurality of groups.

16. The arrangement of claim 1 wherein infected or ill milking animals belong to one of said plurality of groups.

17. The arrangement of claim 1 further comprising driving means, particularly a movable fence, partition, wire or live wire, for driving milking animals in said resting area towards said milking area.

18. The arrangement of claim 1 wherein said large number of milking animals is at least about 200.

19. The arrangement of claim 1 comprising means for altering the belonging from one to another one of said plurality of groups for at least one of said milking animals.

20. The arrangement of claim 1 comprising means for automatically altering the partitions in sections of said at least one of said resting area and said feeding area.

21. A computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups, said arrangement comprising:

- a resting area wherein the milking animals are allowed to rest;
- a feeding area wherein the milking animals are fed; and
- a milking area housing at least one milking robot for milking the animals and a plurality of milking boxes, each of which being adapted to receive a respective milking animal, wherein said at least one milking robot is adapted to milk milking animals present in said plurality of milking boxes concurrently, wherein

- said resting area is partitioned in sections, each of which being adapted to house milking animals belonging to one of said plurality of groups, and each of which being linked to said milking area so that milking animals housed in the respective section have access to a subset only of said plurality of milking boxes; and

- a device provided for automatically enlarging or reducing each of the respective subsets of the plurality of milking boxes, to which milking animals

housed in a section have access, depending on the number of milking animals housed in the respective section or on the milking capacity required by the milking animals housed in the respective section.

22. The arrangement of claim 21 wherein said milking area houses a plurality of milking robots, each of which being adapted to milk milking animals present in at least one of said plurality of milking boxes.

23. The arrangement of claim 21 wherein said device provided for automatically enlarging or reducing each of the respective subsets of the plurality of milking boxes comprises at least one computer-controlled movable partition means, particularly a movable fence, partition, wire or live wire.

24. The arrangement of claim 21 wherein the milking area is arranged so that said milking animals have to pass said milking area when moving from said resting area to said feeding area.

25. The arrangement of claim 21 further comprising driving means, particularly a movable fence, partition, wire or live wire, for driving milking animals in at least one of said sections of said resting area towards said milking area.

26. The arrangement of claim 21 wherein milking animals having similar milk production, milking animals being in similar phases of the lactation cycle, milking animals on heat, gestation milking animals, or ill milking animals belong to one of said plurality of groups.

27. The arrangement of claim 21 wherein

- said large number of milking animals are allowed to move about freely in said feeding area or in said milking area ; and
- said arrangement further comprises a device provided for automatically directing each of said milking animals moving towards said resting area , which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one of said groups, wherein
 - said device provided for directing includes a milking animal identification device provided for identifying each milking animal presenting itself in front of said device provided for directing, and a device provided for opening at least one gate depending on said milking animal identification.

28. A computer-controlled arrangement for voluntary milking of a large number of milking animals, each of which belongs to one of a plurality of groups, said arrangement comprising:

- a resting area wherein the milking animals are allowed to rest;
- a feeding area wherein the milking animals are fed;
- a milking area housing at least one milking robot for milking the milking animals presenting themselves in the milking area if the presented milking animals satisfy a milking decision criteria,
 - wherein at least one of said resting area and said feeding area is partitioned in sections which corresponds to the number of said groups, to which said milking animals belong; and
 - a device provided for automatically directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups.

29. A computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups, said arrangement comprising:

- a resting area wherein the milking animals are allowed to rest;

- a feeding area wherein the milking animals are fed;
- a milking area housing at least one milking robot for milking the milking animals, animals of each of the said plurality of groups having simultaneous access to the milking area,
 - wherein at least one of said resting area and said feeding area is partitioned in sections which corresponds to the number of said groups, to which said milking animals belong; and
 - a device provided for automatically directing each of said milking animals moving towards said at least one of said resting area and said feeding area, which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one only of said groups.

**IX. APPENDIX B – EVIDENCE SUBMITTED UNDER CFR 1.130, 1.131,
OR 1.132**

None.

**X. APPENDIX C - DECISIONS RENDERED BY THE COURT OR THE
BOARD IN RELATED APPEALS AND INTERFERENCES SECTION**

None.